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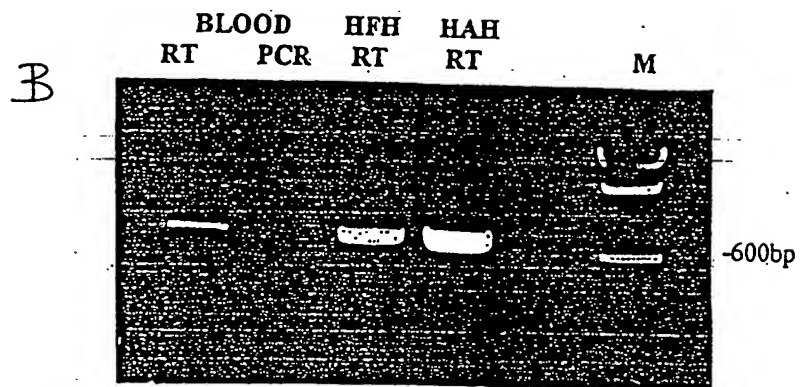
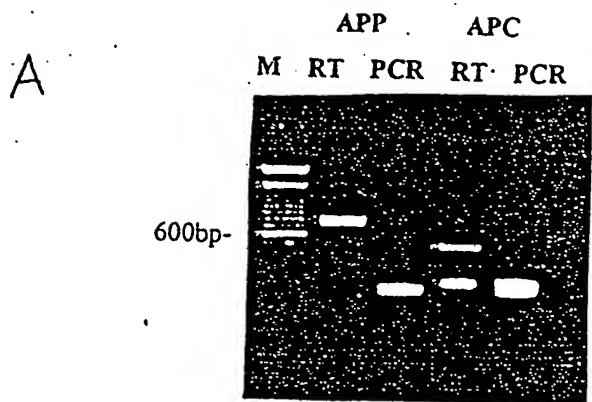


FIGURE 1

1 2 3 4 5 6 7 8



FIGURE 2

1 2 3 4



FIGURE 3

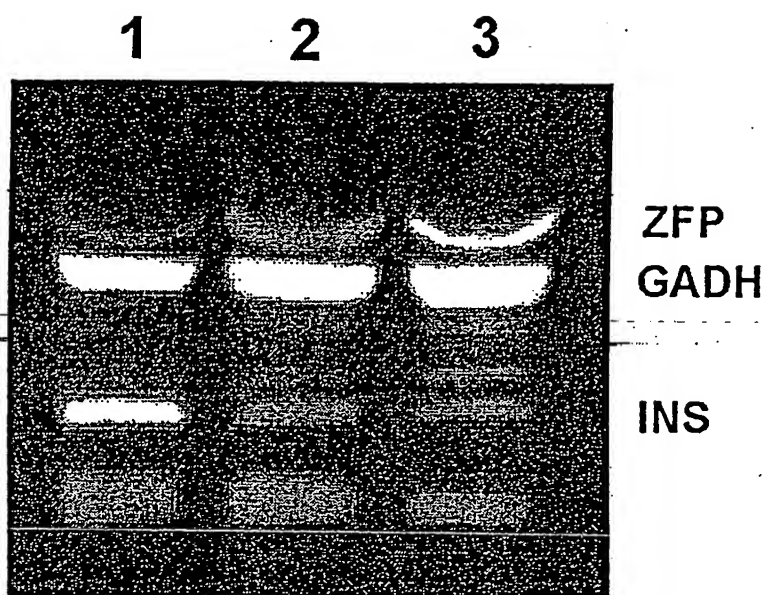
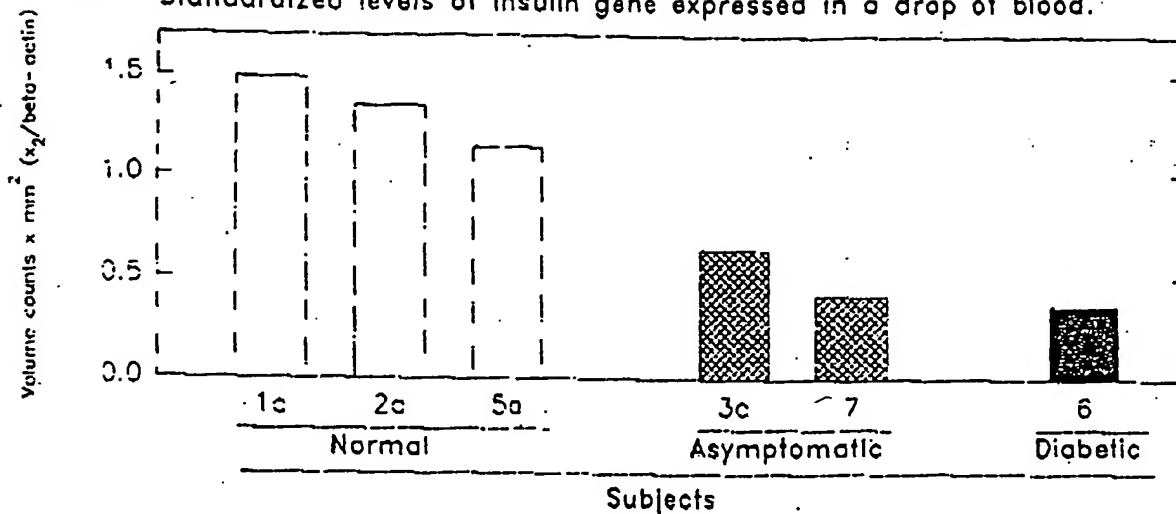


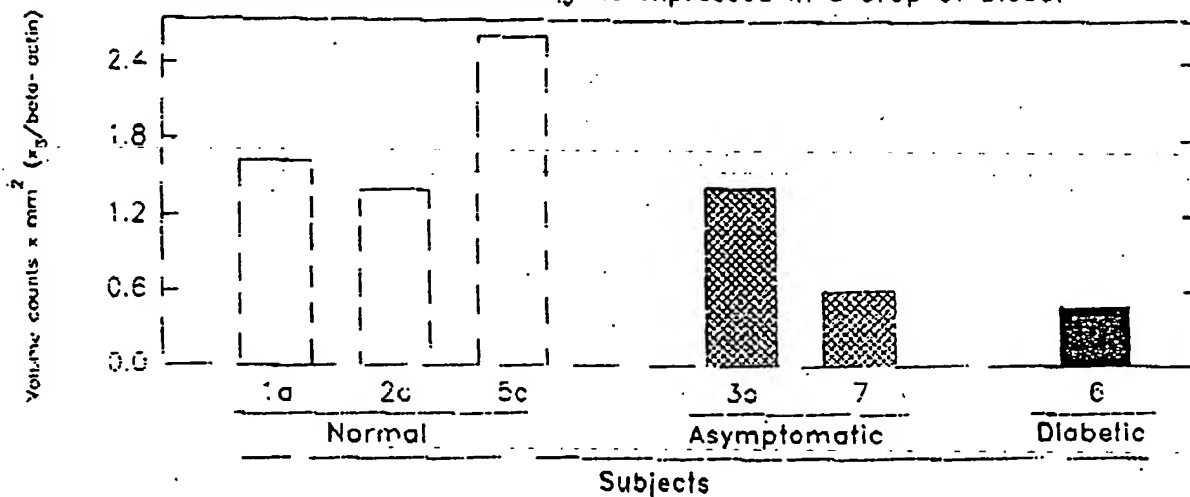
FIGURE 4

A. Standardized levels of Insulin gene expressed in a drop of blood.



B.

Standardized levels of ZFP gene expressed in a drop of blood.



C.

Standardized levels of insulin gene expressed in each fractionated cell from whole blood.

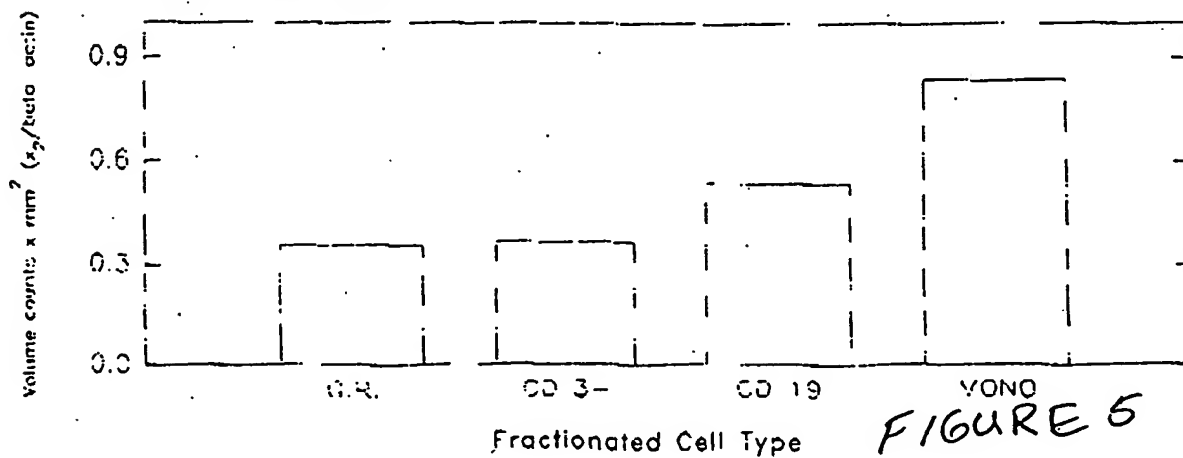
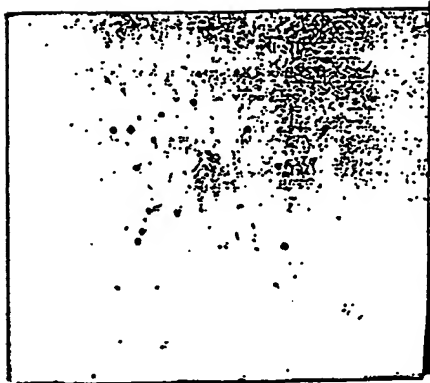


FIGURE 5

A



B

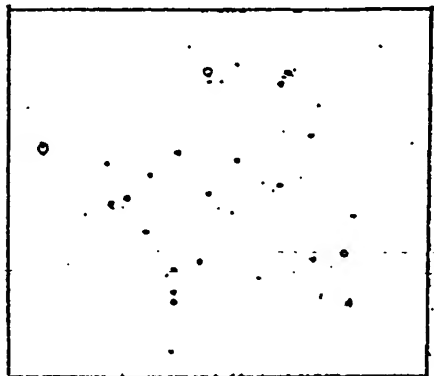







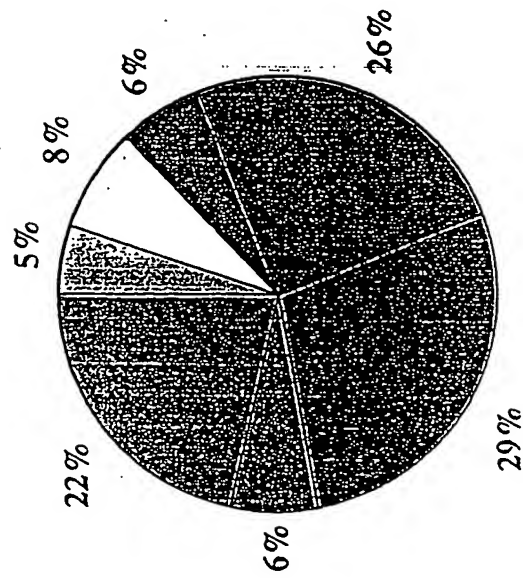


FIGURE 6

Total : 13, 283 ESTs  
 Known: 6,283  
 Mitochondrial: 405  
 Ribosome: 498  
 Repeat: 868  
 Mis. : 156  
 Novel: 2,718

-  Cell Division
-  Cell Signalling/Communication
-  Cell structure/Motility
-  Cell/organism defense
-  Gene/Protein expression
-  Metabolism
-  Unclassified

### Human Blood



### Human Fetal Heart

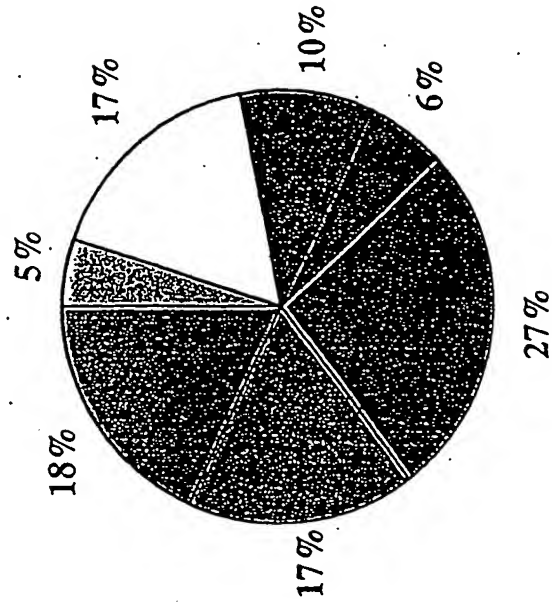
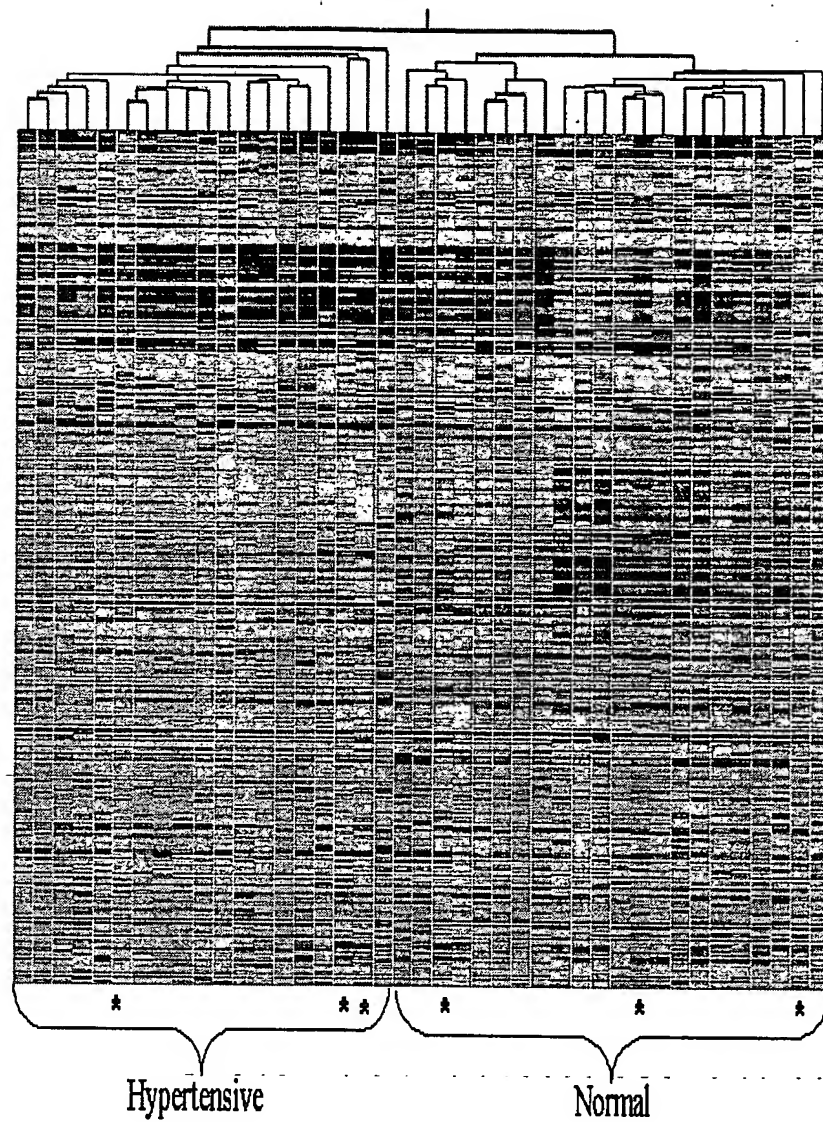


FIGURE 7



Figure 8  
Hypertension

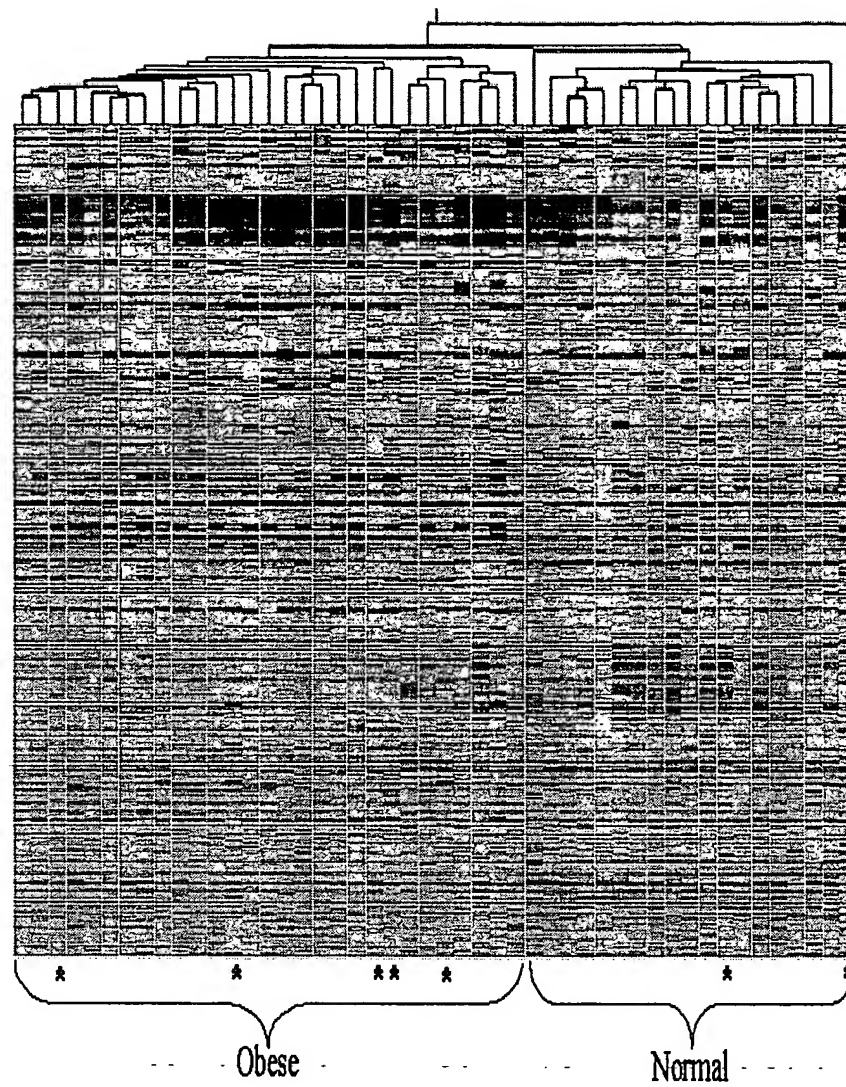


Hypertensive: 19

Normal: 22

Differentially Expressed Genes ( $p < 0.05$ ): 861

Figure 9  
Obesity



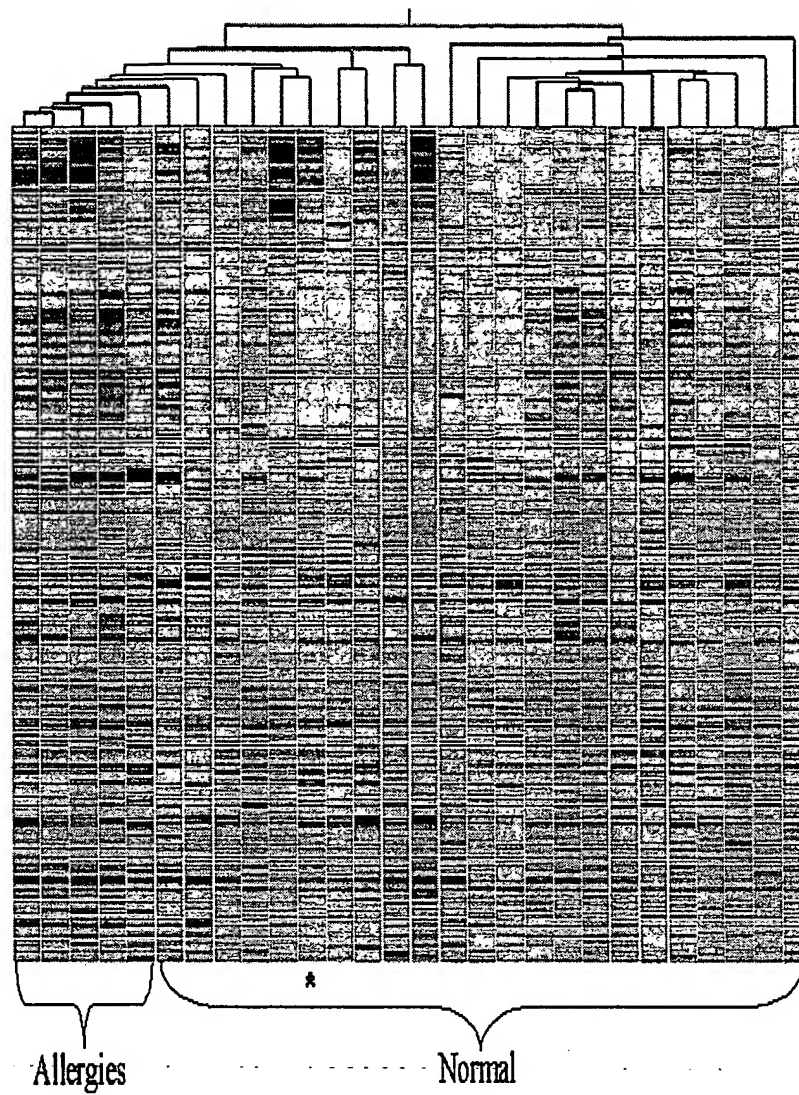
Obese: 25

Normal: 22

Differentially Expressed Genes ( $p < 0.05$ ): 913

Figure 10

Allergies



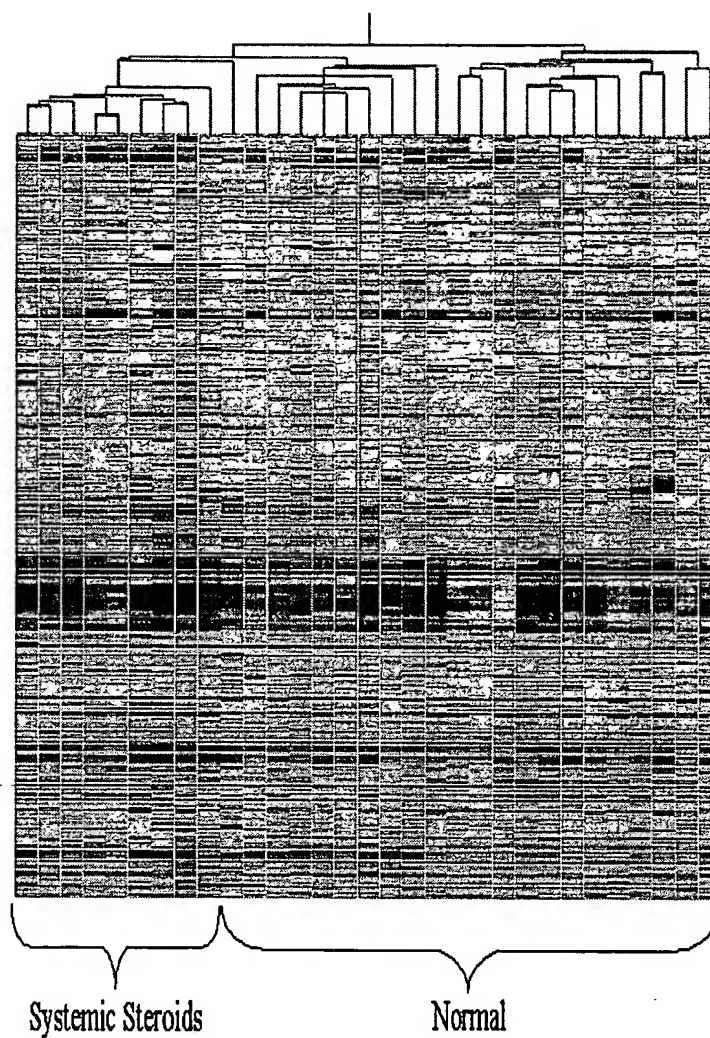
Allergies: 6

Normal: 22

Differentially Expressed Genes ( $p < 0.05$ ): 633

Figure 11

Systemic  
Steroids



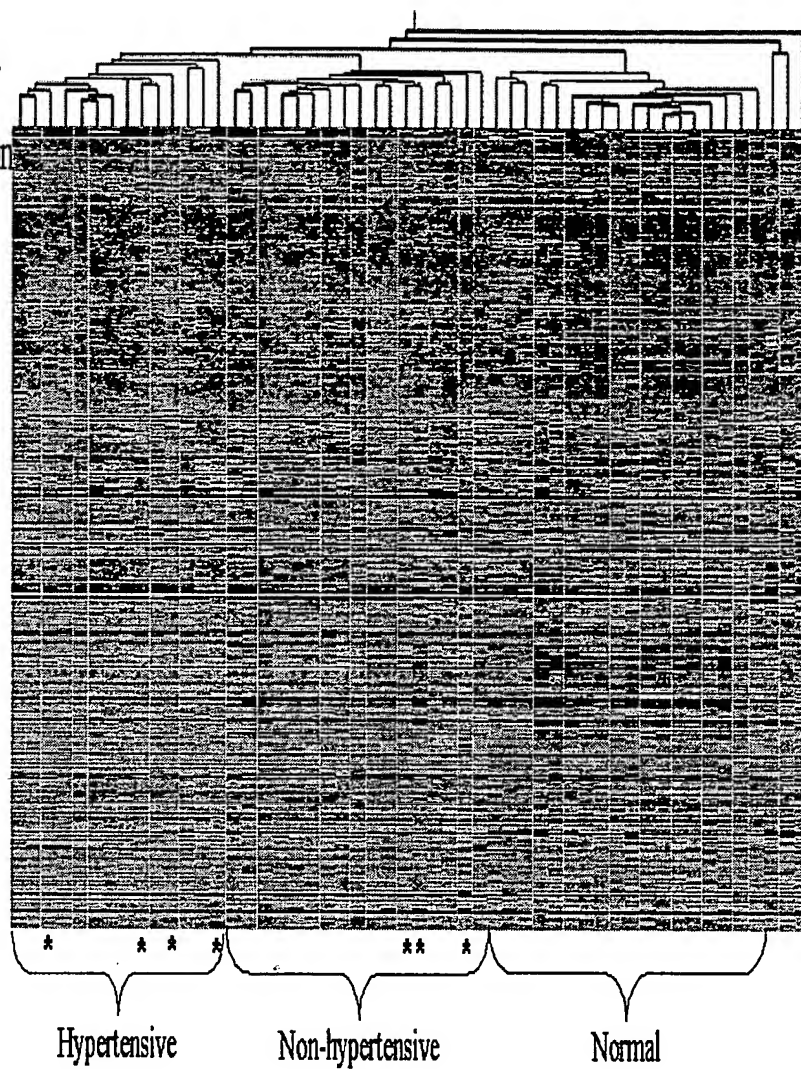
Systemic Steroids: 9

Normal: 22

Differentially Expressed Genes ( $p < 0.05$ ): 605

Figure 12

Hypertension



Hypertensive: 10

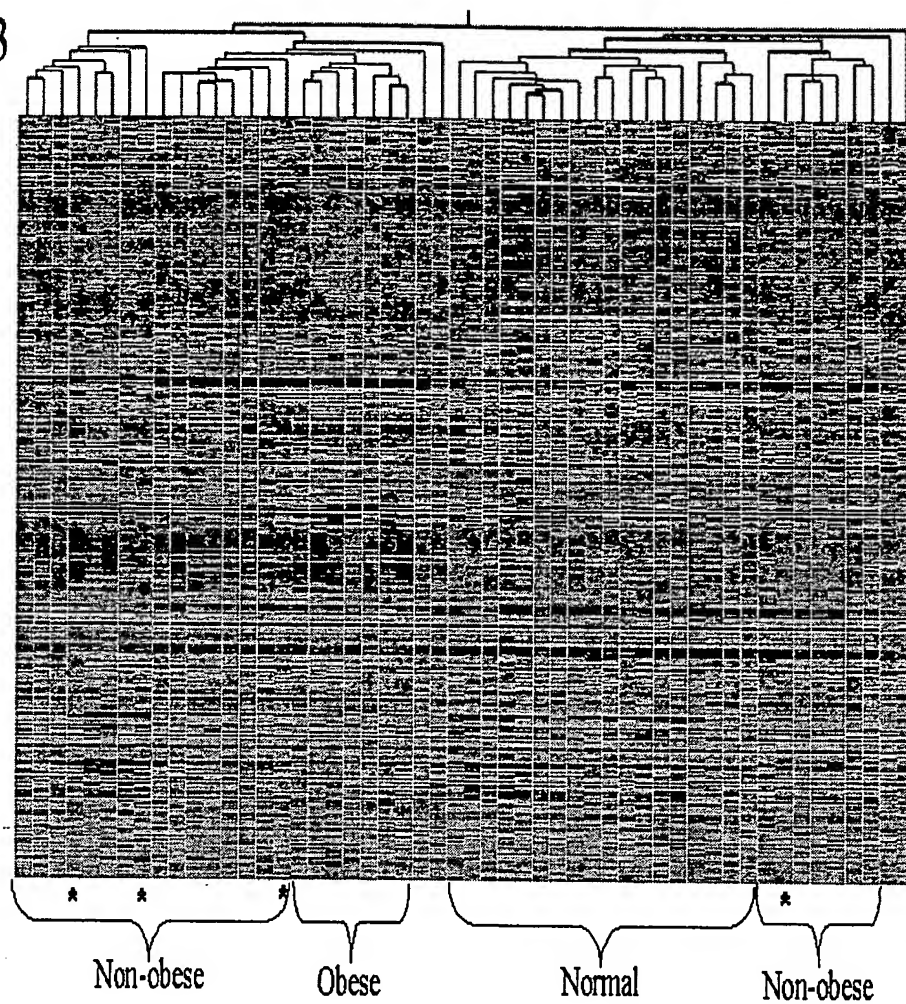
Non-hypertensive: 18

Normal: 24

Differentially Expressed Genes ( $p < 0.05$ ): 1,993

Figure 13

Obesity



Obese: 8

Non-obese: 20

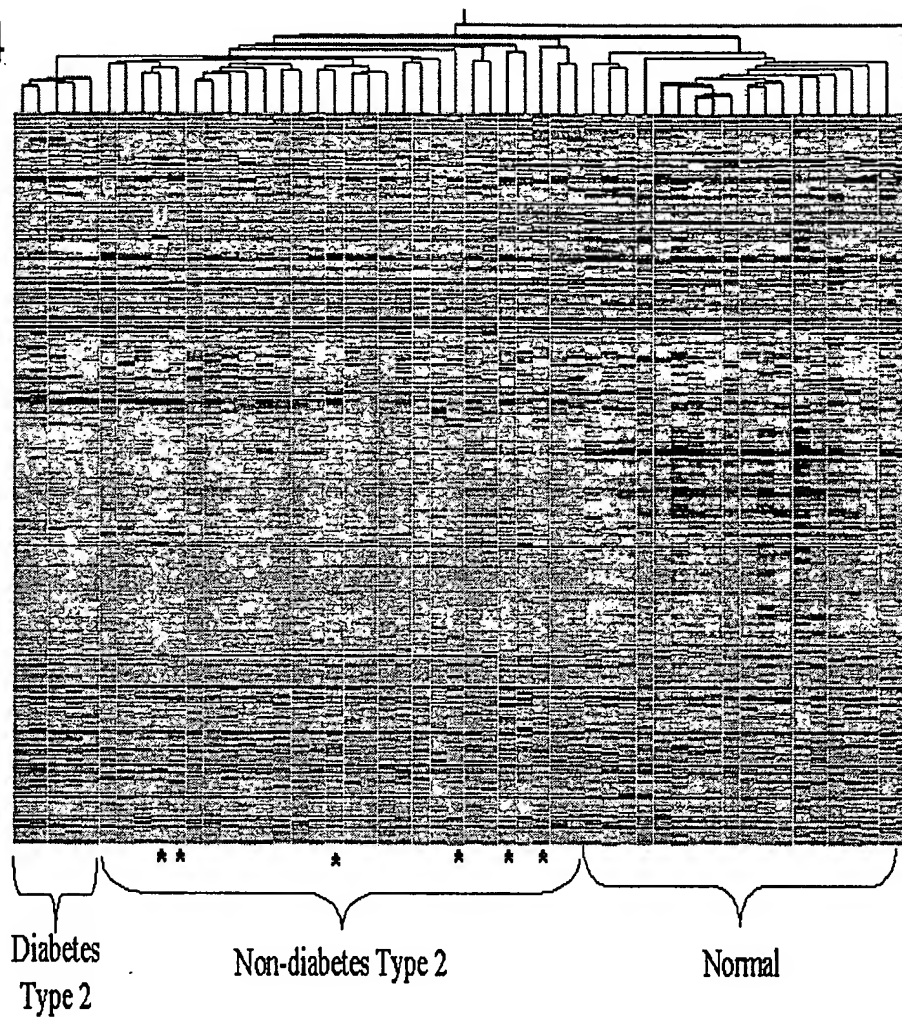
Normal: 24

Differentially Expressed Genes ( $p < 0.05$ ): 1,147



Figure 14

Diabetes  
Type 2



Diabetes  
Type 2

Non-diabetes Type 2

Normal

Diabetes Type 2: 5

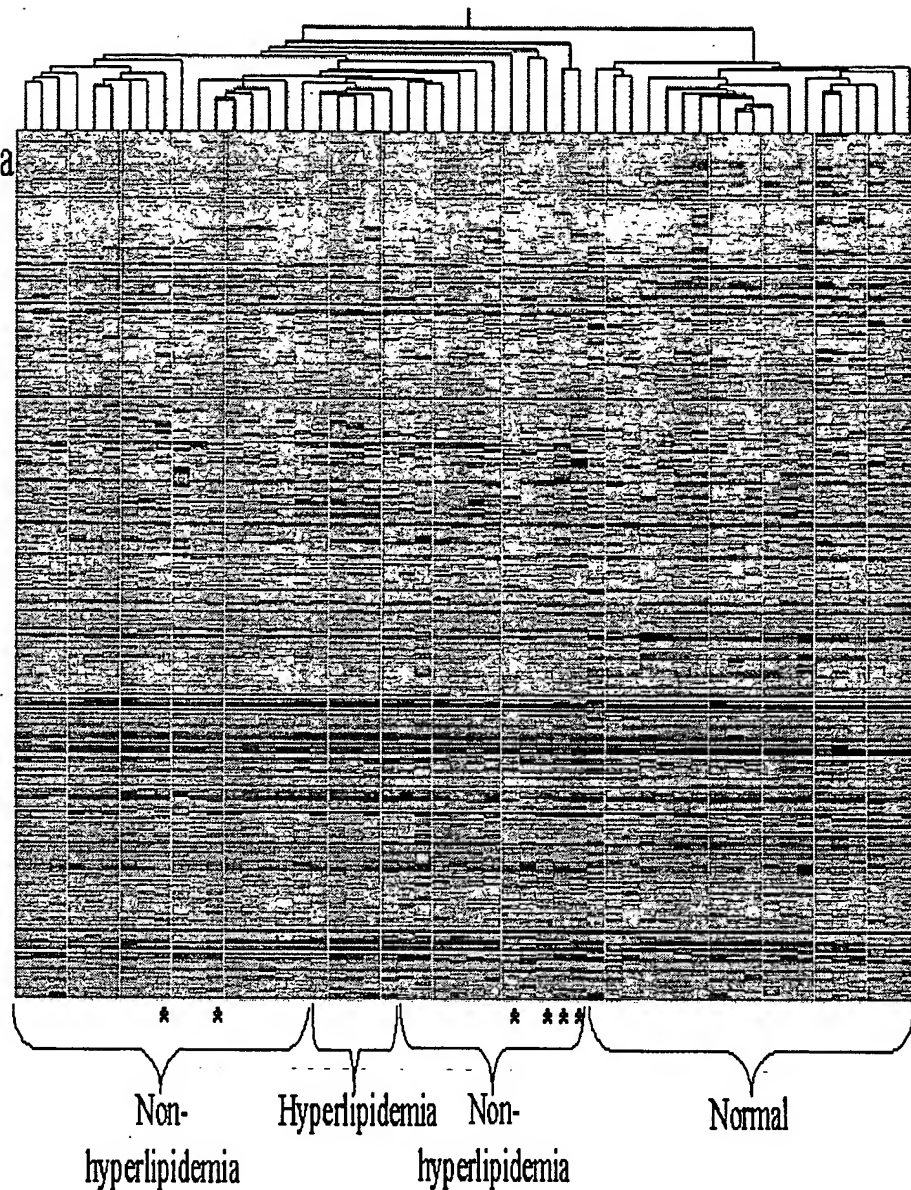
Non-diabetes Type 2: 23

Normal: 24

Differentially Expressed Genes ( $p < 0.05$ ): 915

Figure 15

Hyperlipidemia



Hyperlipidemia: 7

Non-hyperlipidemia: 21

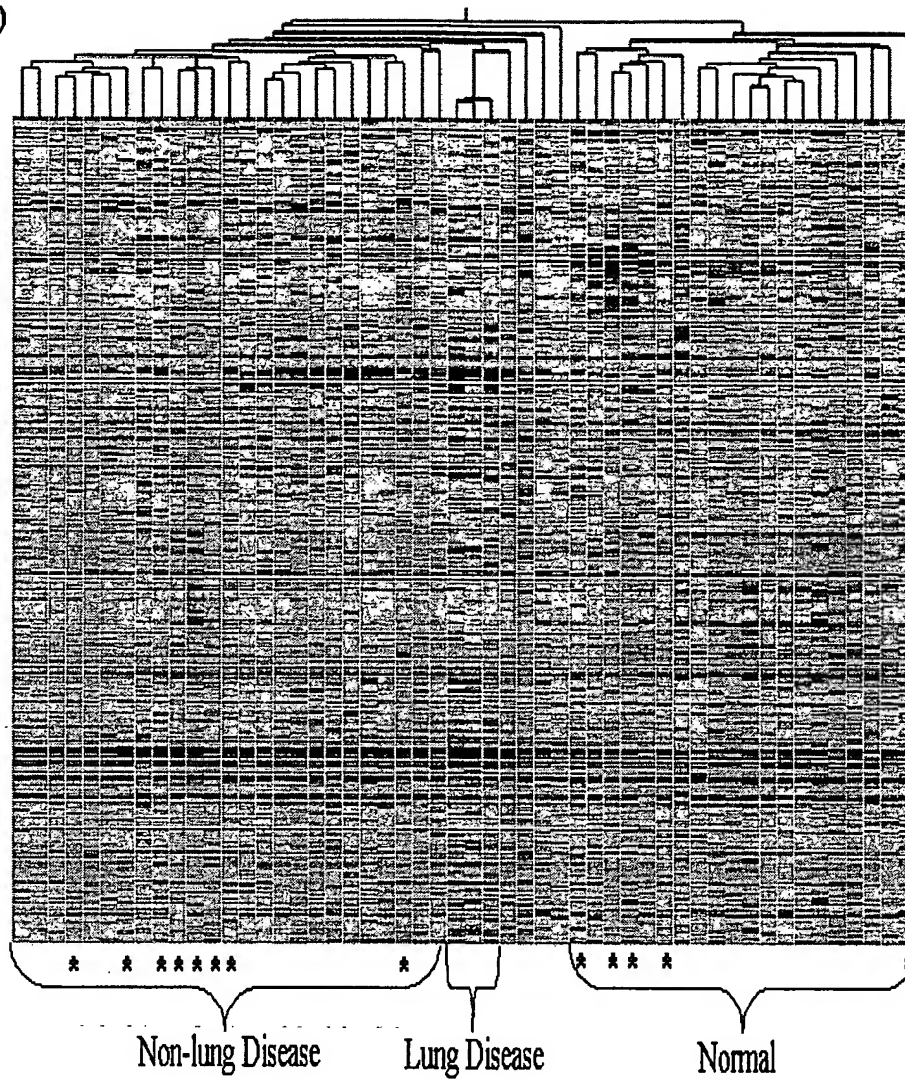
Normal: 24

Differentially Expressed Genes ( $p < 0.05$ ): 1,022



Figure 16

Lung  
Disease



Lung Disease: 3

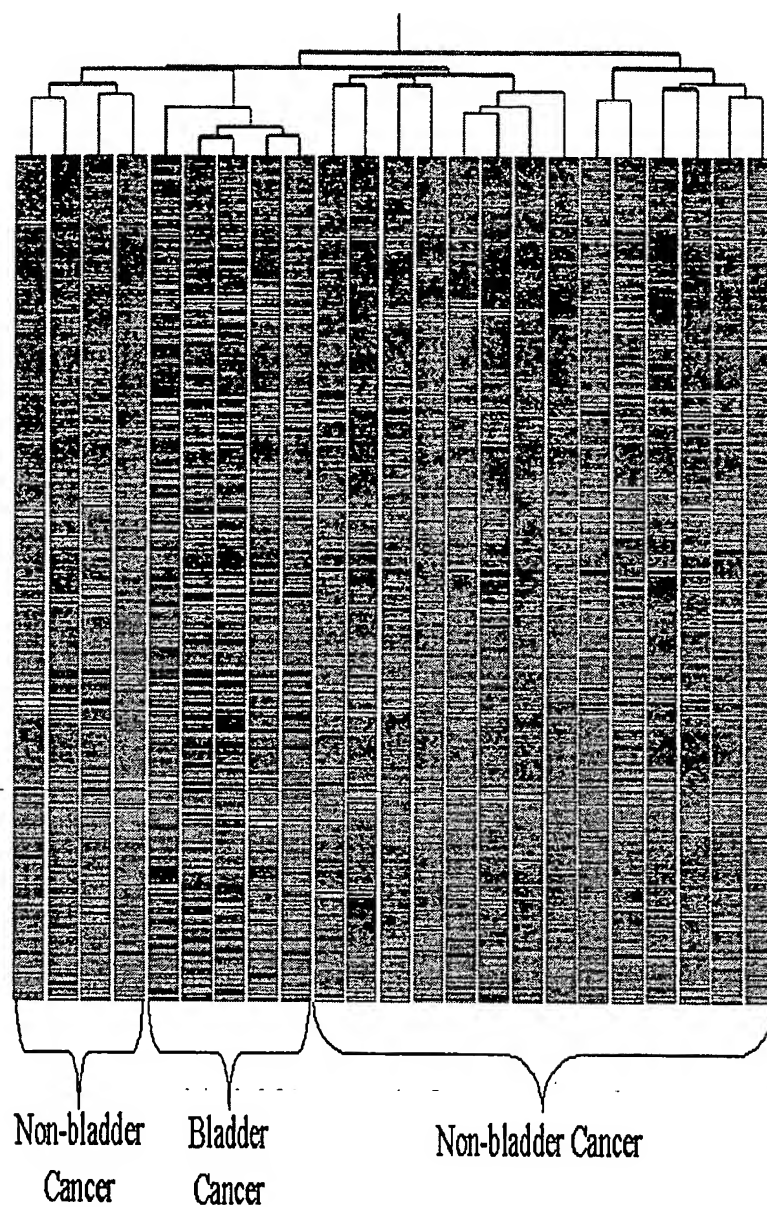
Non-lung Disease: 25

Normal: 24

Differentially Expressed Genes ( $p < 0.05$ ): 596

Figure 17

Bladder  
Cancer



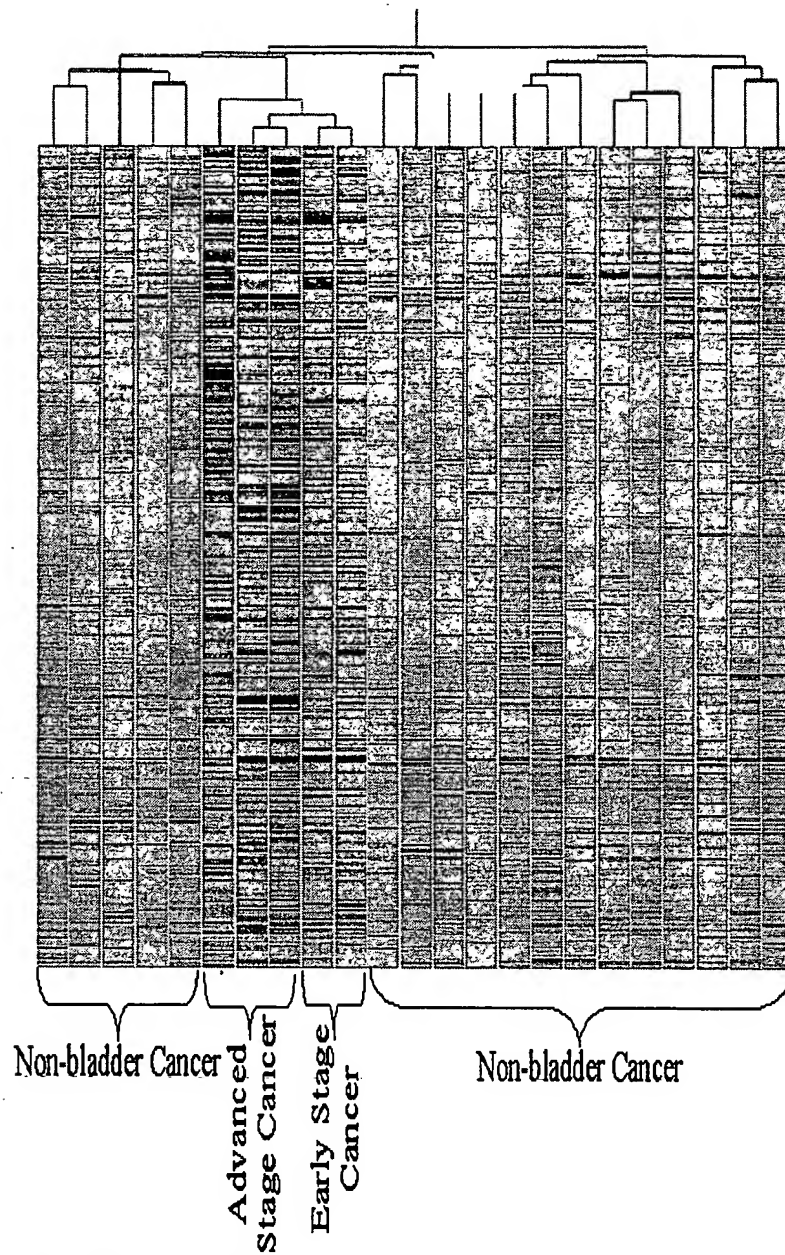
Bladder Cancer: 5

Non-bladder Cancer: 18

Differentially Expressed Genes ( $p < 0.05$ ): 4,228

Figure 18

Bladder  
Cancer



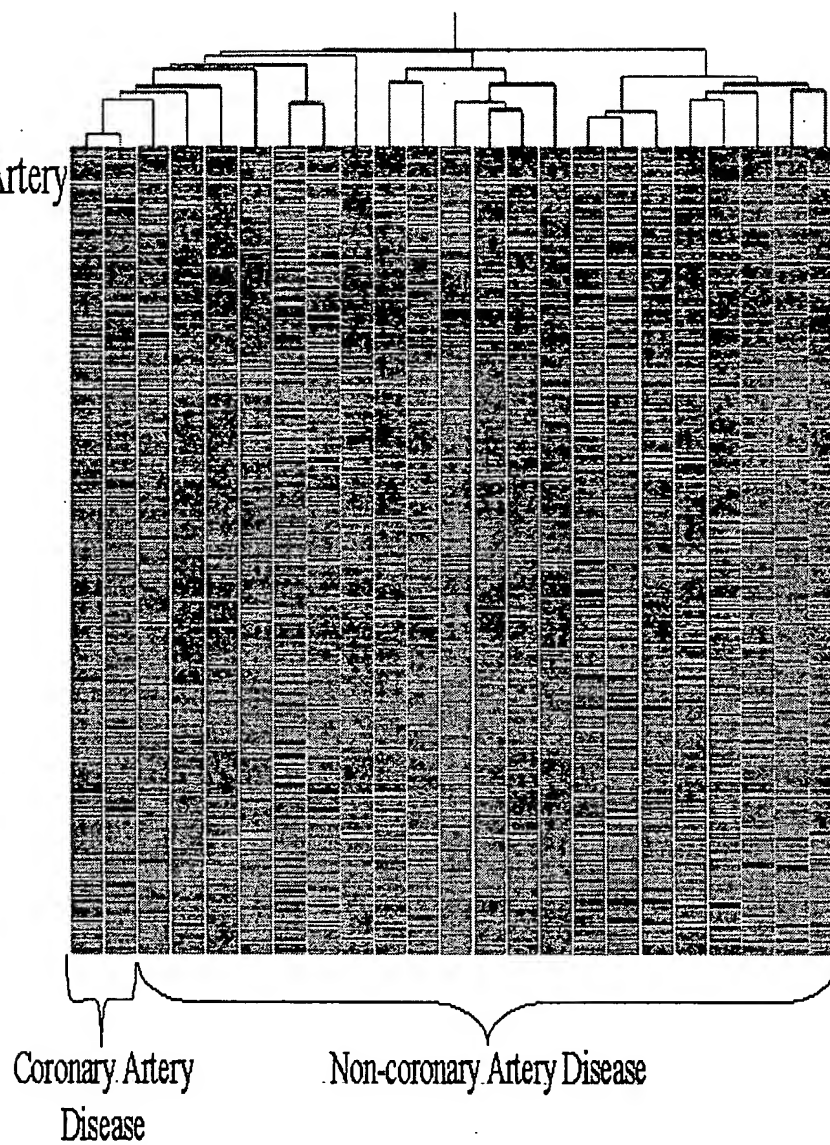
Bladder Cancer: 3 advanced stage, 2 early stage

Non-bladder Cancer: 18

Differentially Expressed Genes ( $p < 0.05$ ): 3,518

Figure 19

Coronary Artery  
Disease



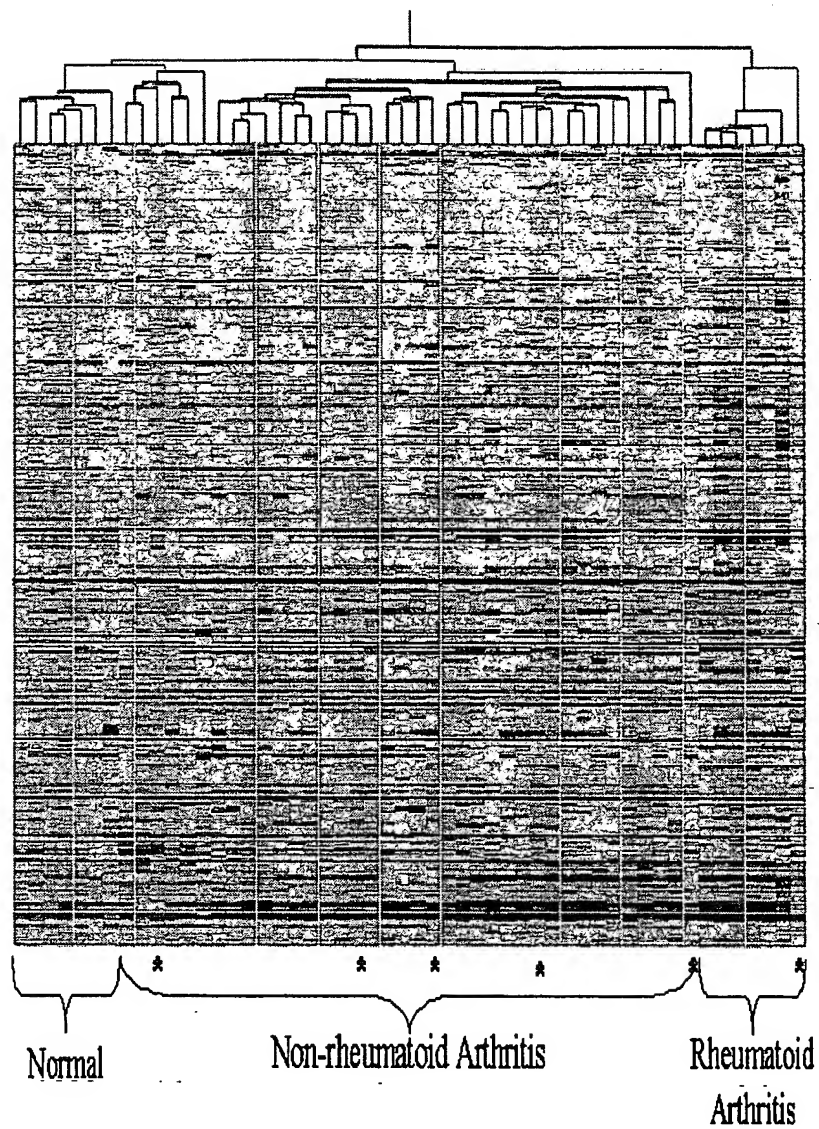
Coronary Artery Disease: 2

Non-coronary Artery Disease: 21

Differentially Expressed Genes ( $p < 0.05$ ): 967

Figure 20

Rheumatoid  
Arthritis



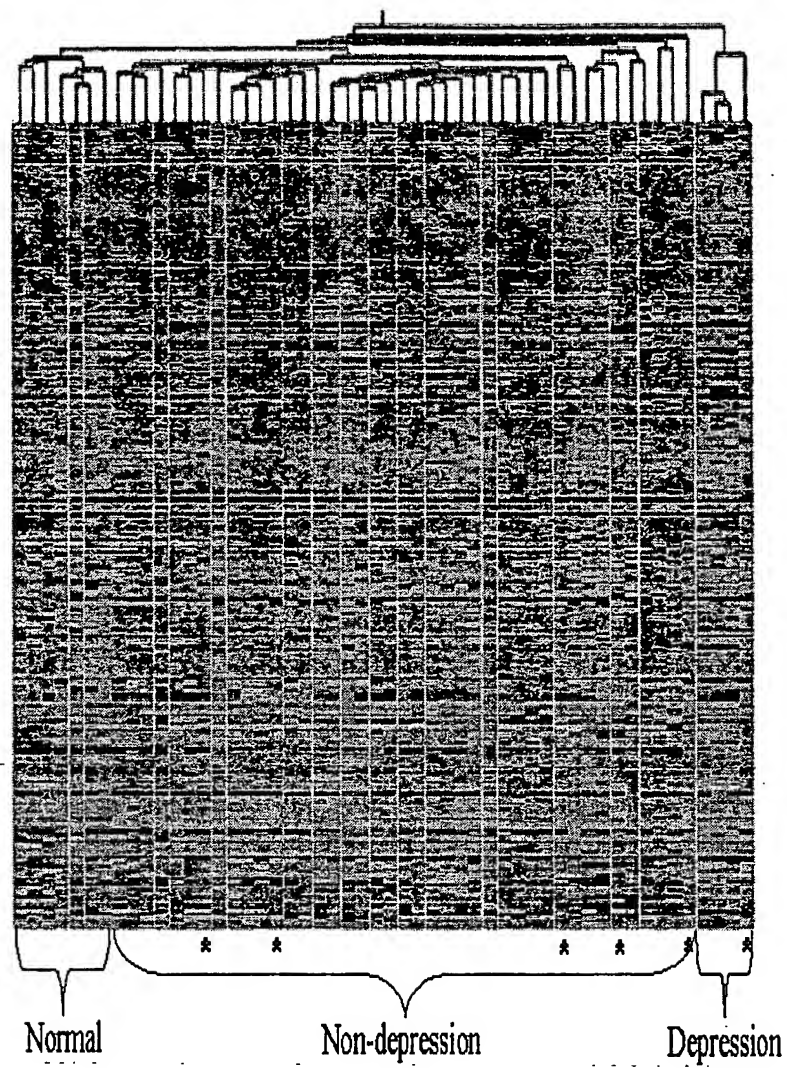
Rheumatoid Arthritis: 6

Non-rheumatoid Arthritis: 34

Normal: 12

Differentially Expressed Genes ( $p < 0.05$ ): 2,068

Figure 21  
Depression



Depression: 3

Non-depression: 37

Normal: 12

Differentially Expressed Genes ( $p < 0.05$ ): 941



Figure 22  
Osteoarthritis

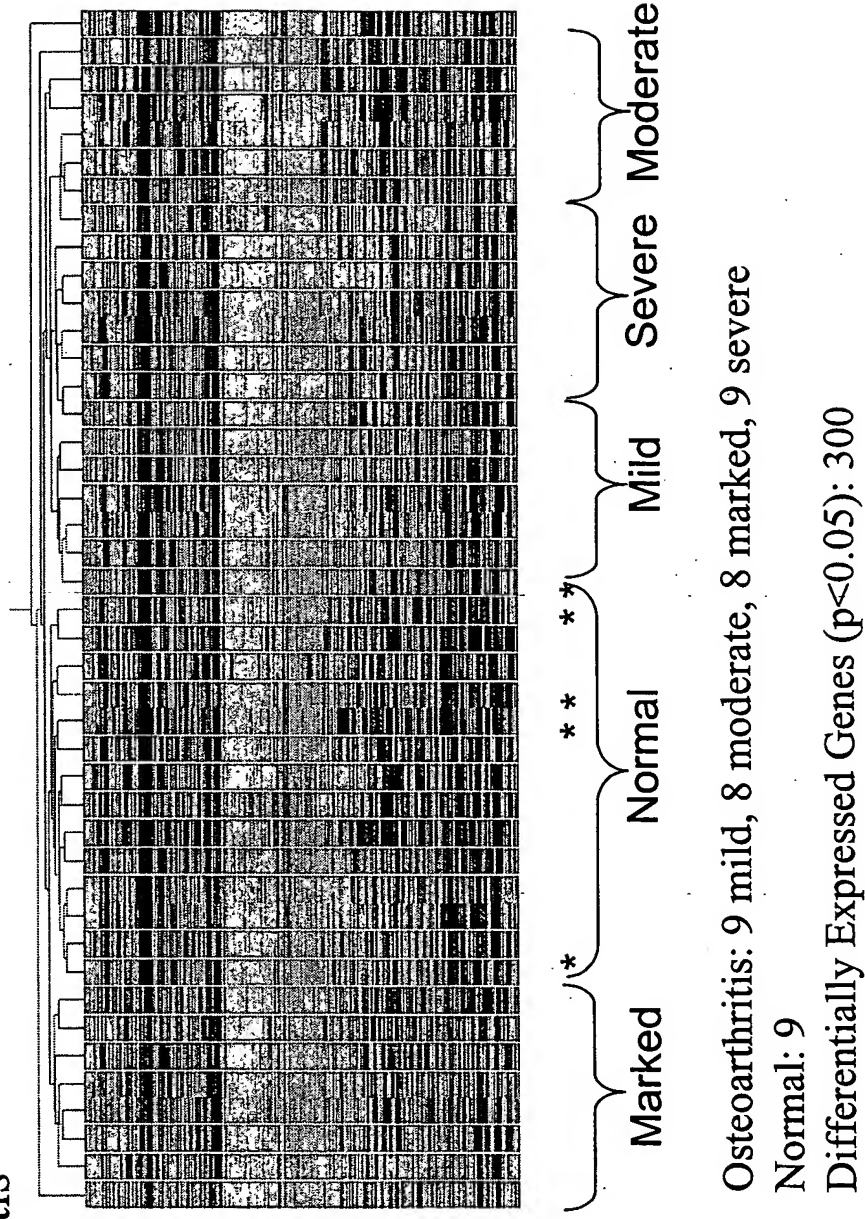
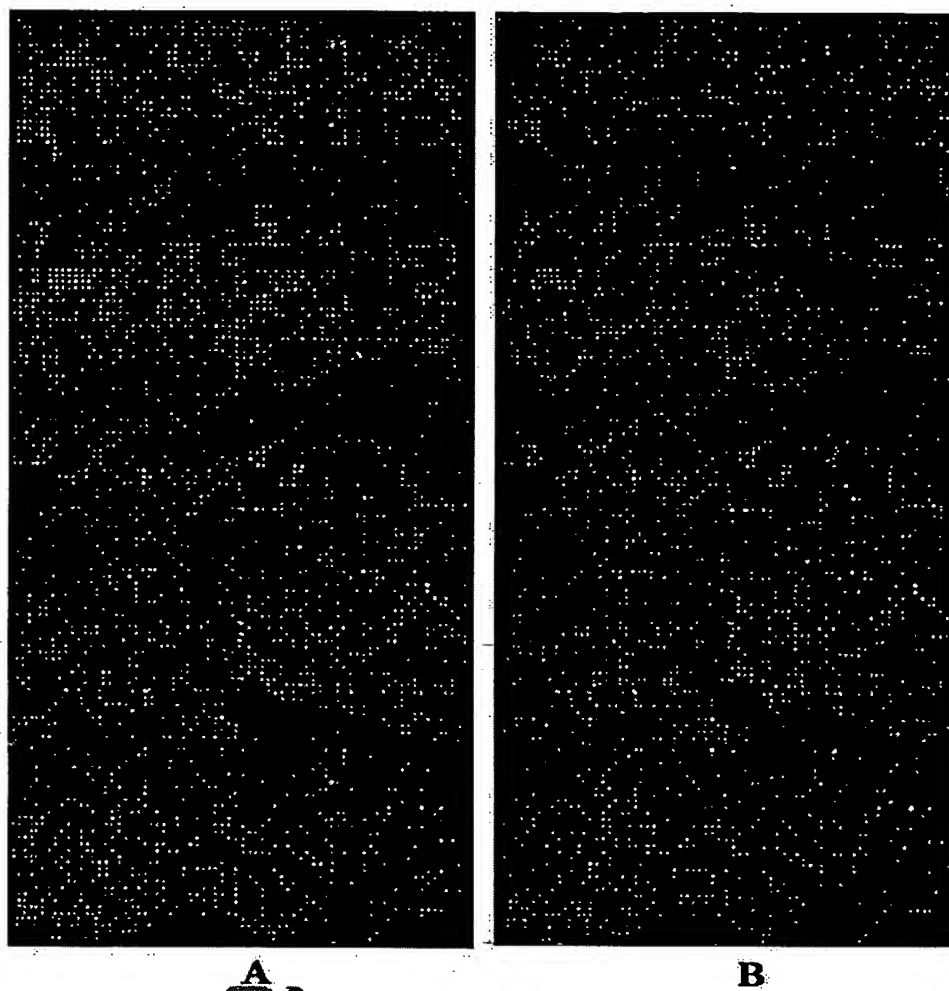




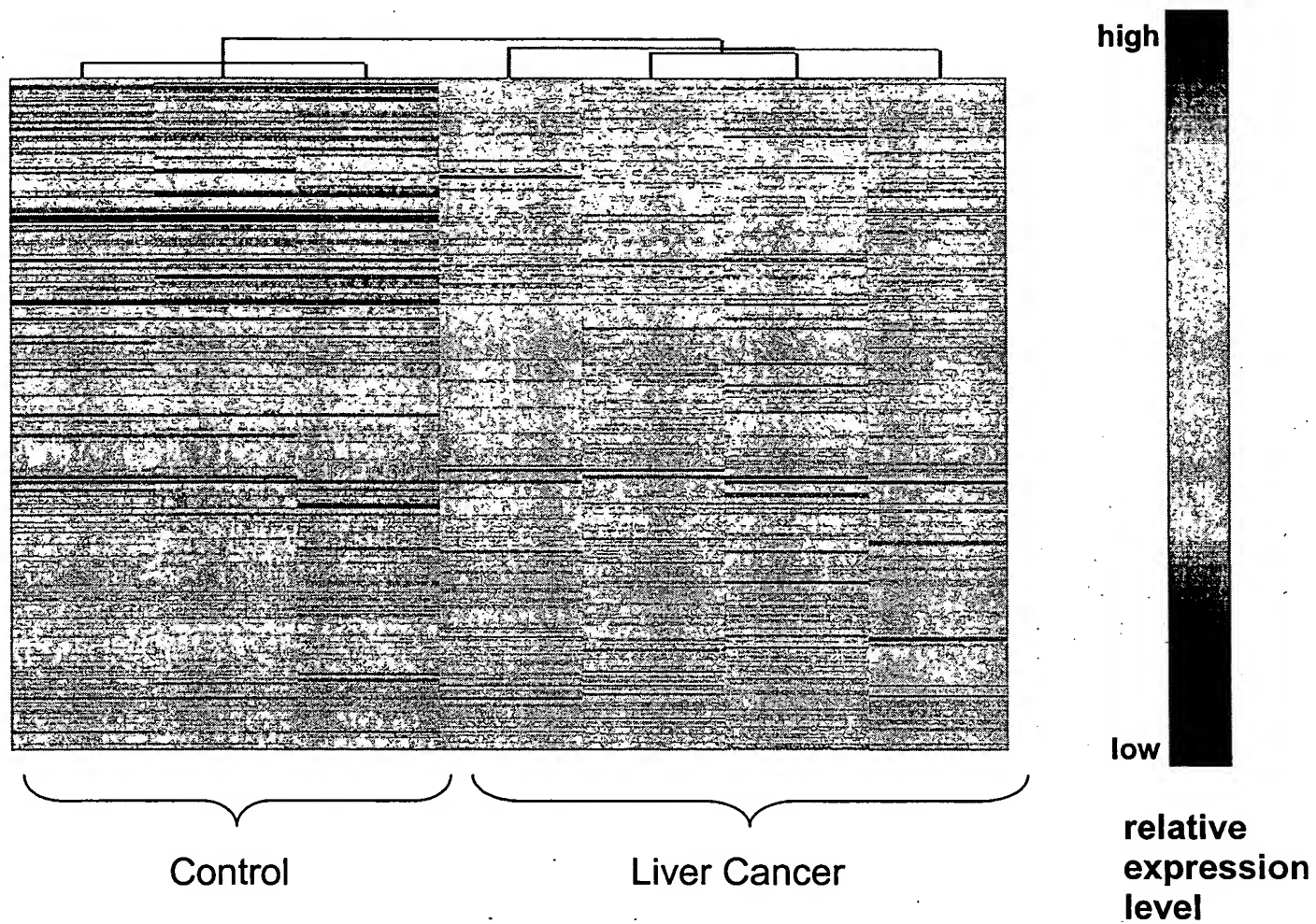


Figure 24



**Figure 25**

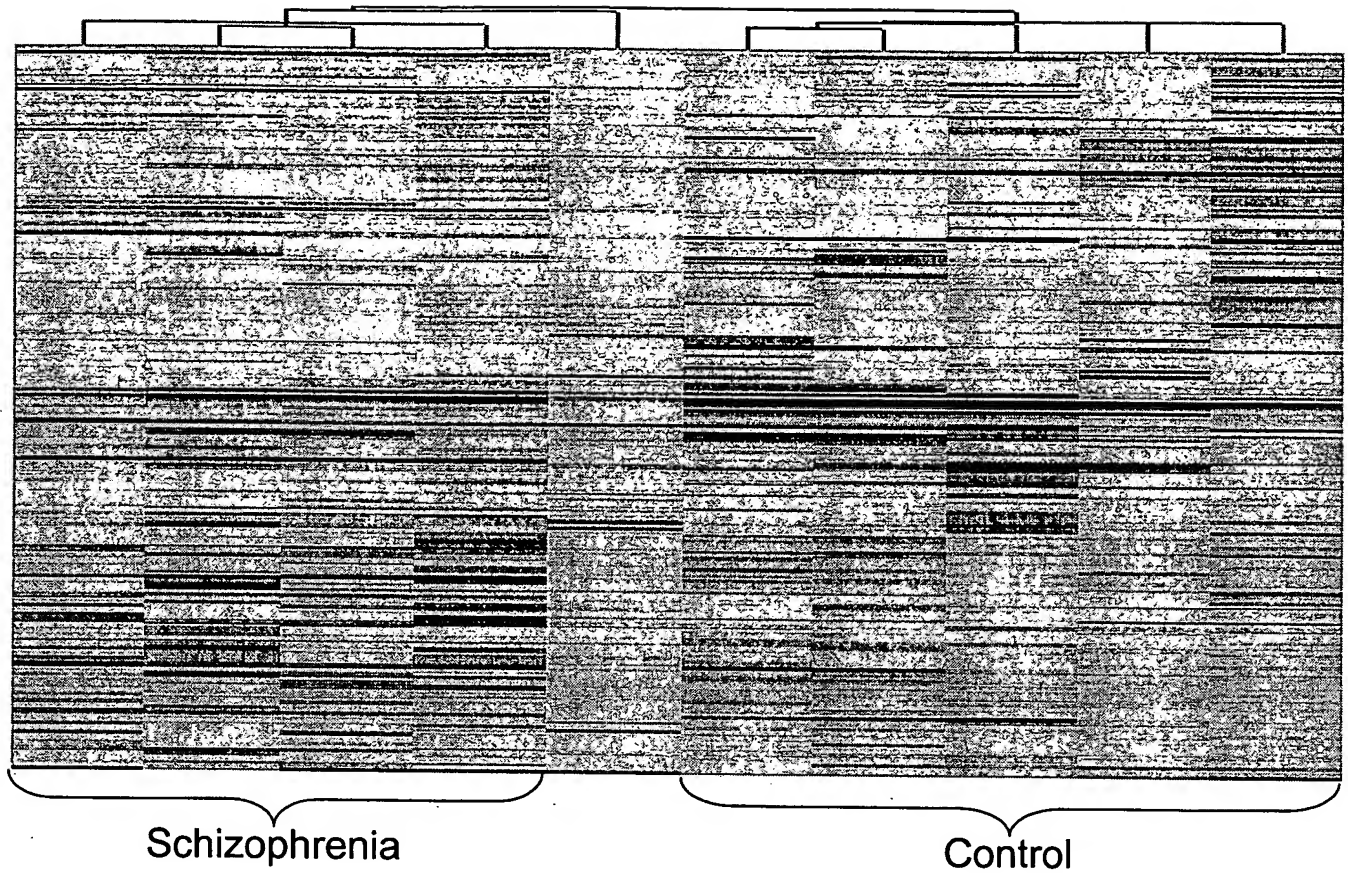
**Liver Cancer**



Control (red): n=3; Liver Cancer (orange): n=4

Figure 26

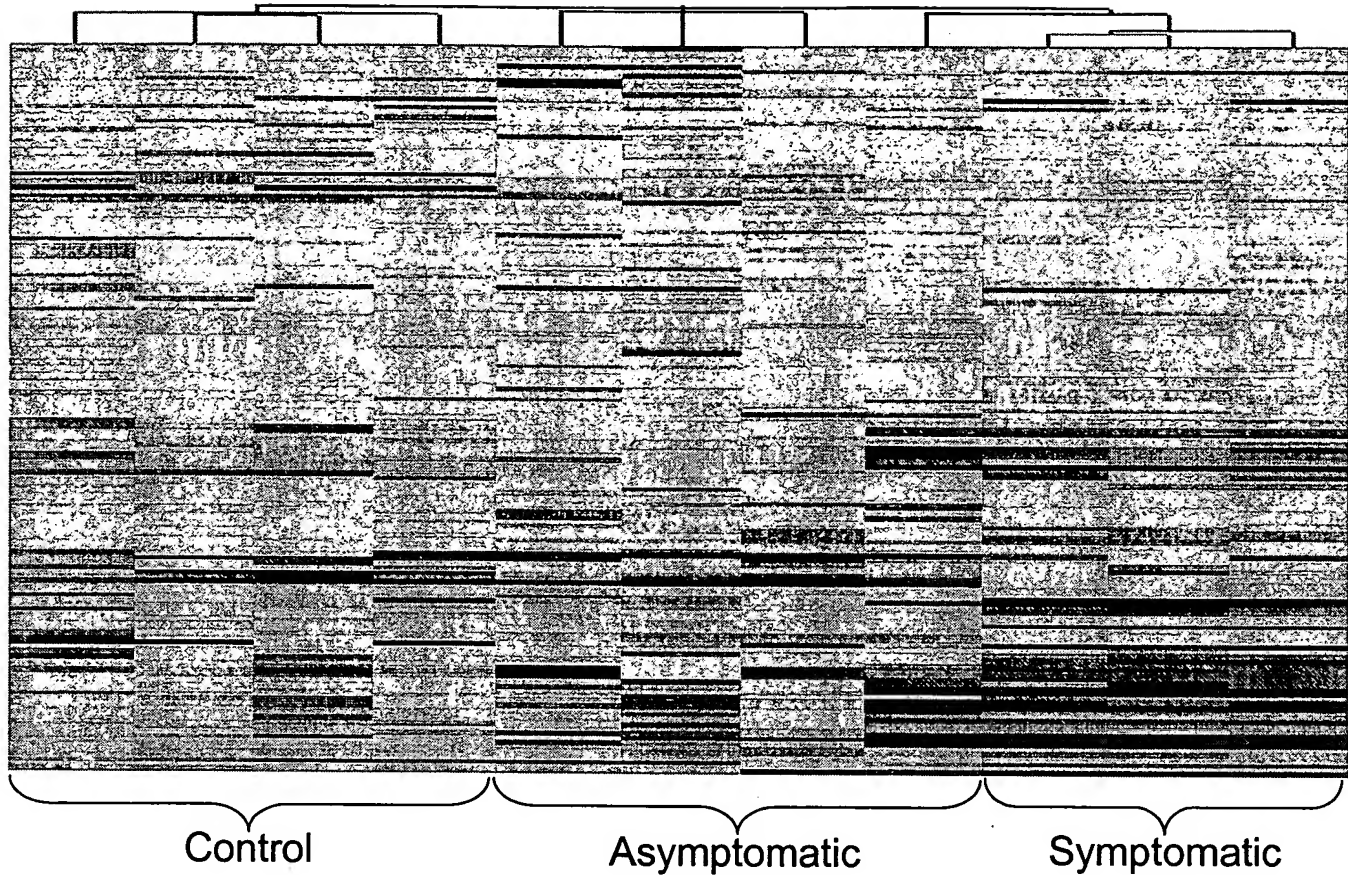
## Schizophrenia



Control (red): n=6; Schizophrenia (orange): n=4

$p < 0.005$   
252 genes

**Figure 27**  
**Chagas Disease**

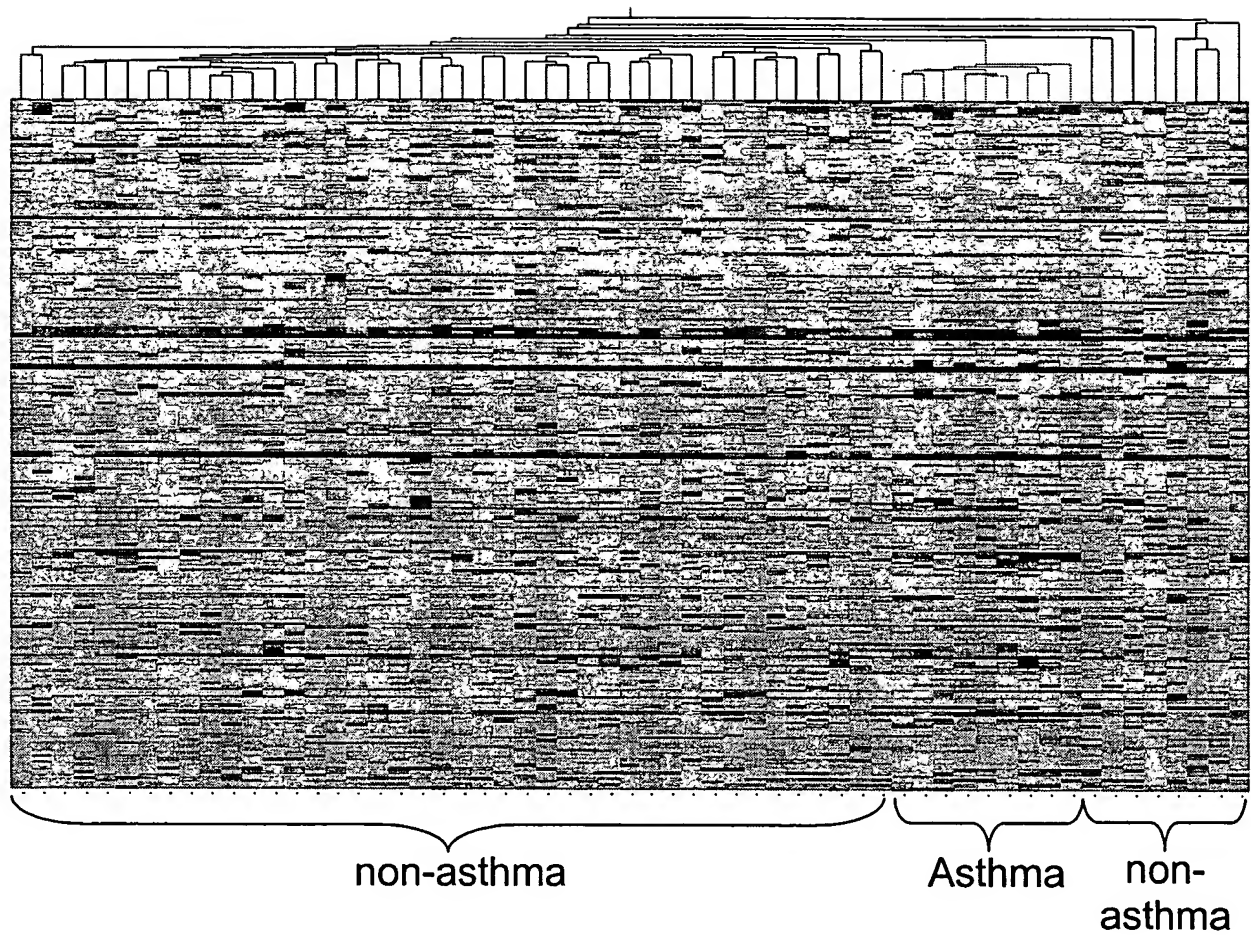


Control (orange): n=4; Chagas' asympt. (red): n=4;  
Chagas' sympt. (yellow): n=3

$p < 0.01$   
155 genes

**Figure 28**

**Asthma**



Asthma: n=9 Non-asthma: n=50

$p < 0.05$   
219 genes

Figure 29

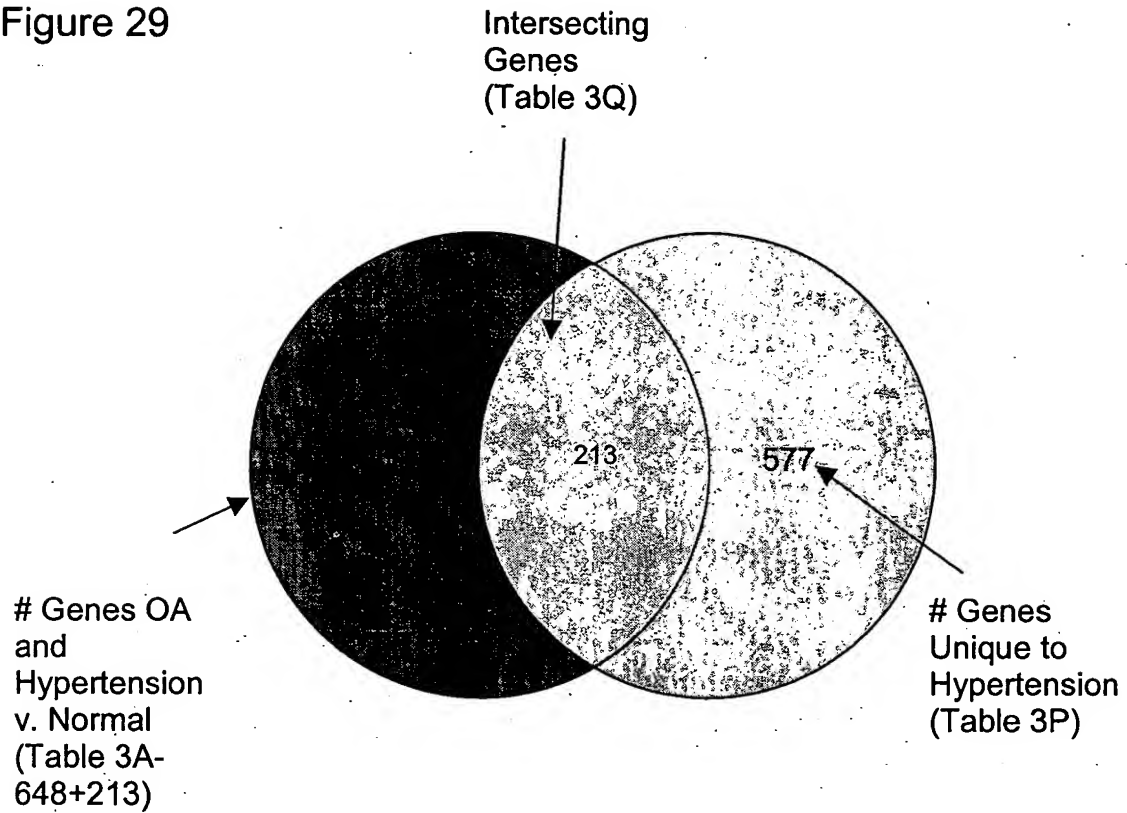


Figure 30

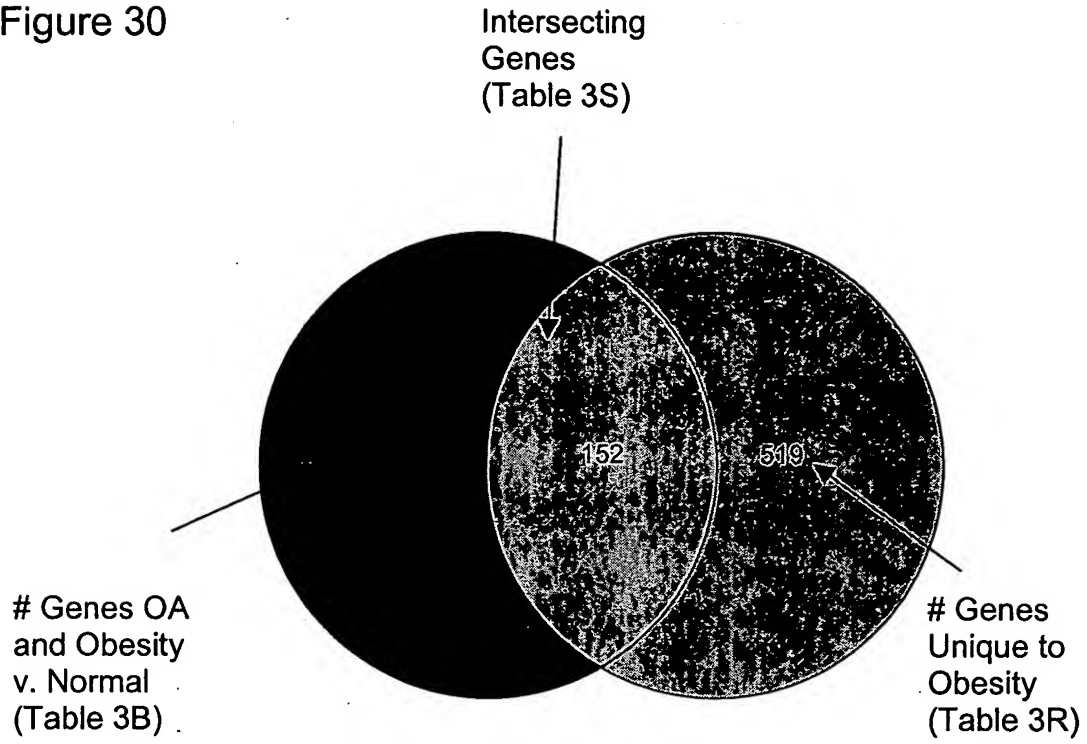




Figure 31

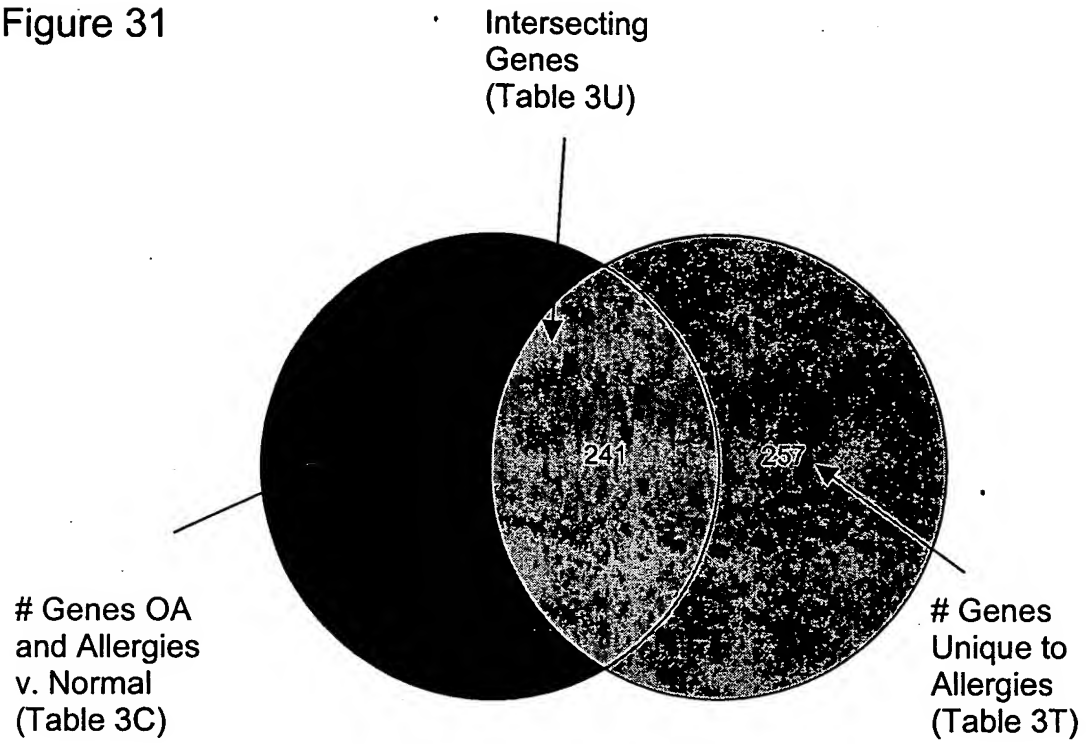




Figure 32

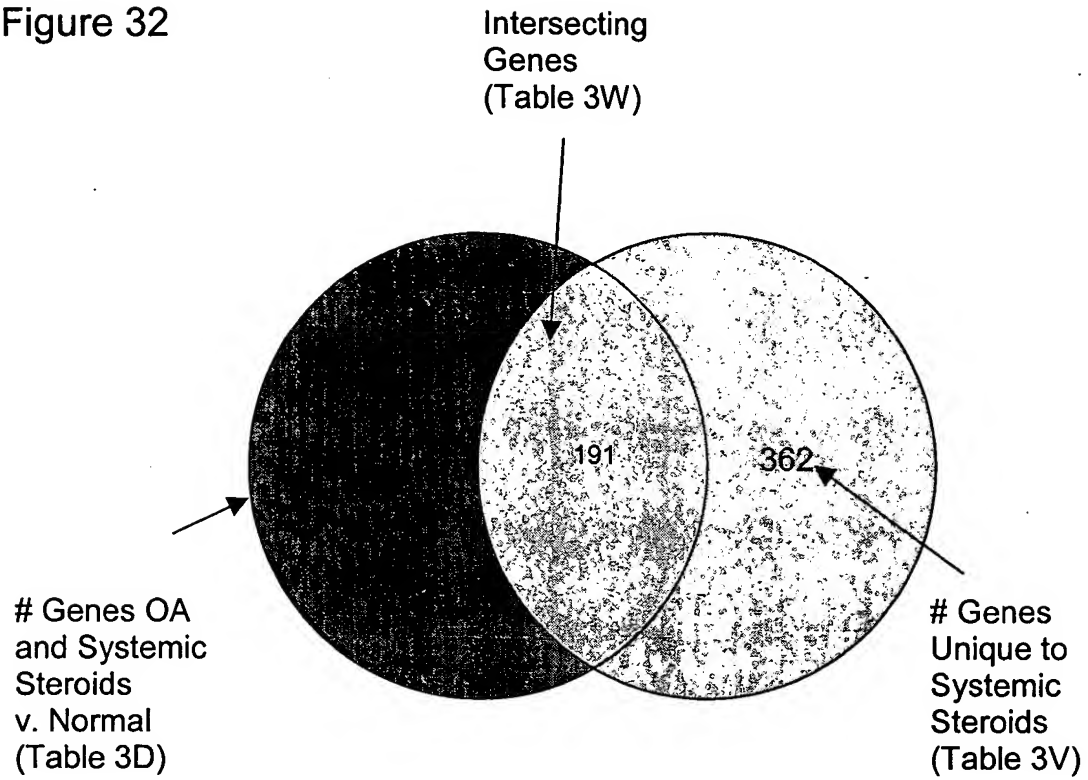
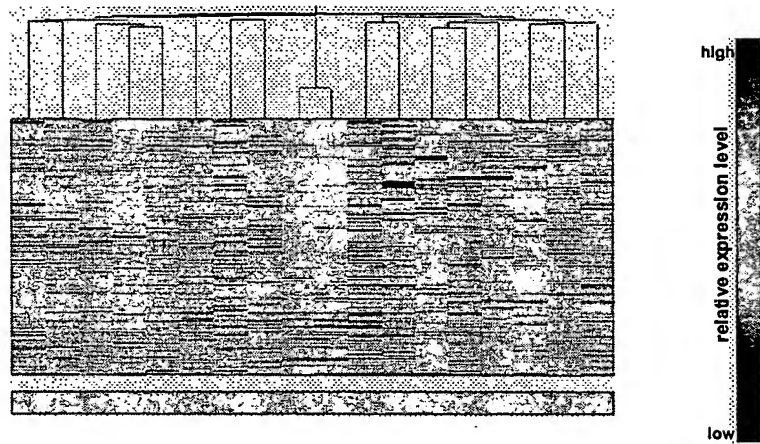


Figure 33

### Schizophrenia, Batch 2 vs. MDS



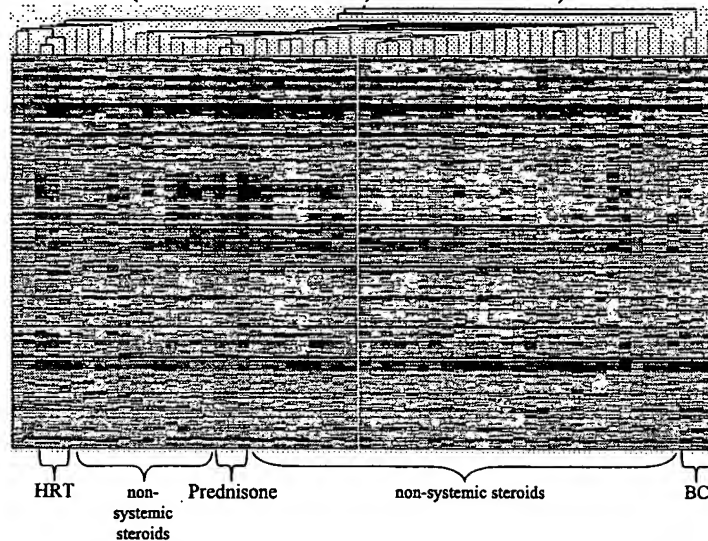
$p < 0.05$   
294 genes

Schizophrenia (yellow):  $n=16$ ; MDS (blue):  $n=2$

MDS = Manic Depression Syndrome

Figure 34

OA Blood Samples Co-morbidities Study: Systemic Steroid Groups  
(n=59: mild OA blood-29, severe OA blood-30)



Systemic Steroids (n=9): 3 prednisone, 3 birth control, 3 hormone replacement therapy

Non-systemic steroids: 50

Differentially Expressed Genes ( $p < 0.05$ ): 396

HRT = hormone replacement therapy; BC = birth control